



Hedera dApp Days Session 1: Introduction

Gehrig Kunz, Waylon Jepsen, Ed Marquez

DevRel Team



/ed-marquez



@ed__marquez

With dApp days, you will learn how to build and deploy applications on Hedera!



**Session 1:
Introduction**




**Session 2:
Smart Contracts with
Hedera Tokens**



**Session 3:
Conclusions
and Next Steps**

Get a testnet account! (<https://portal.hedera.com/register>)



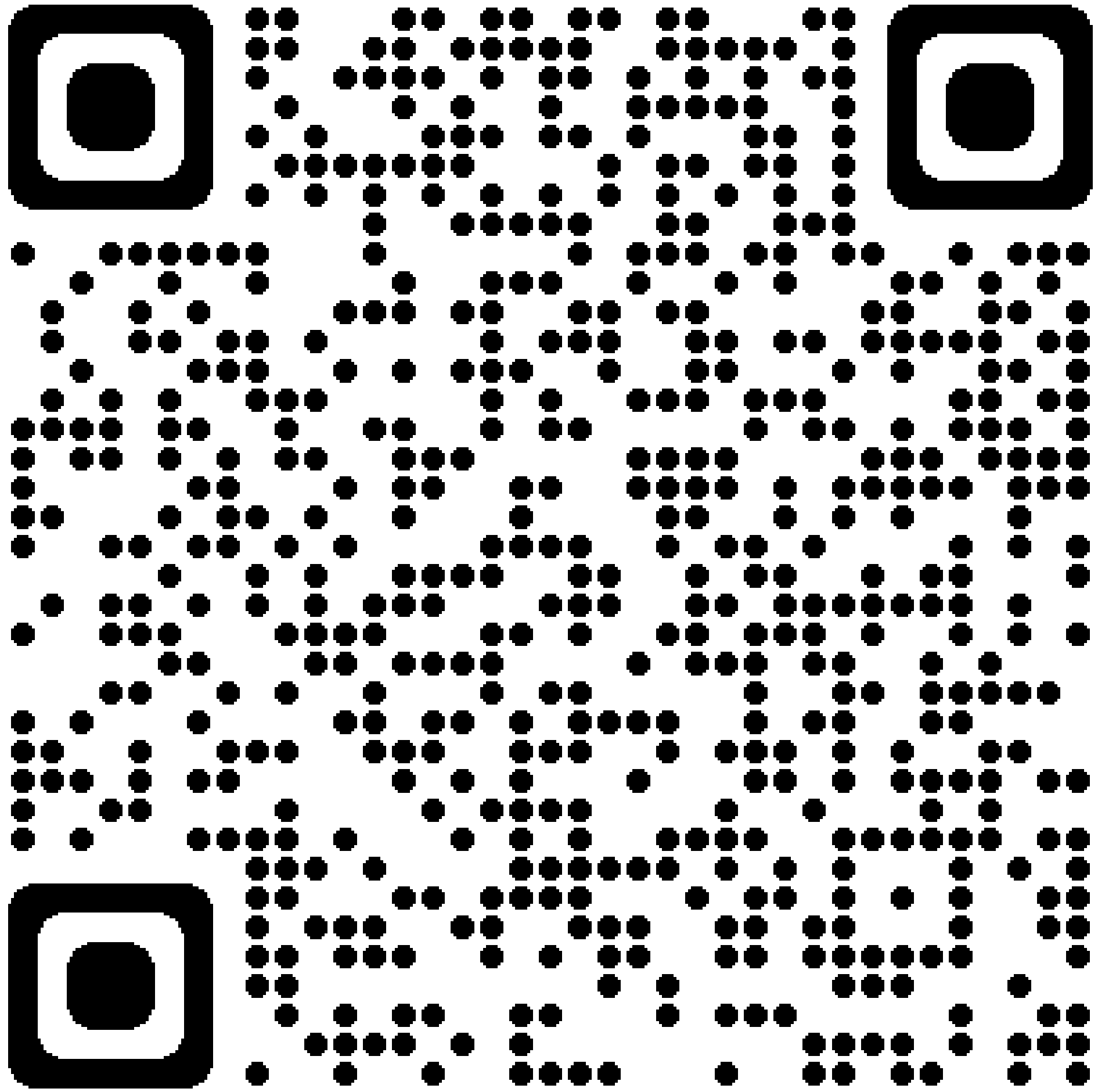
Create a developer **Testnet** account

Create a developer portal profile to start building decentralized applications.

By creating a Hedera profile you agree to the [Terms Of Service](#).

START BUILDING

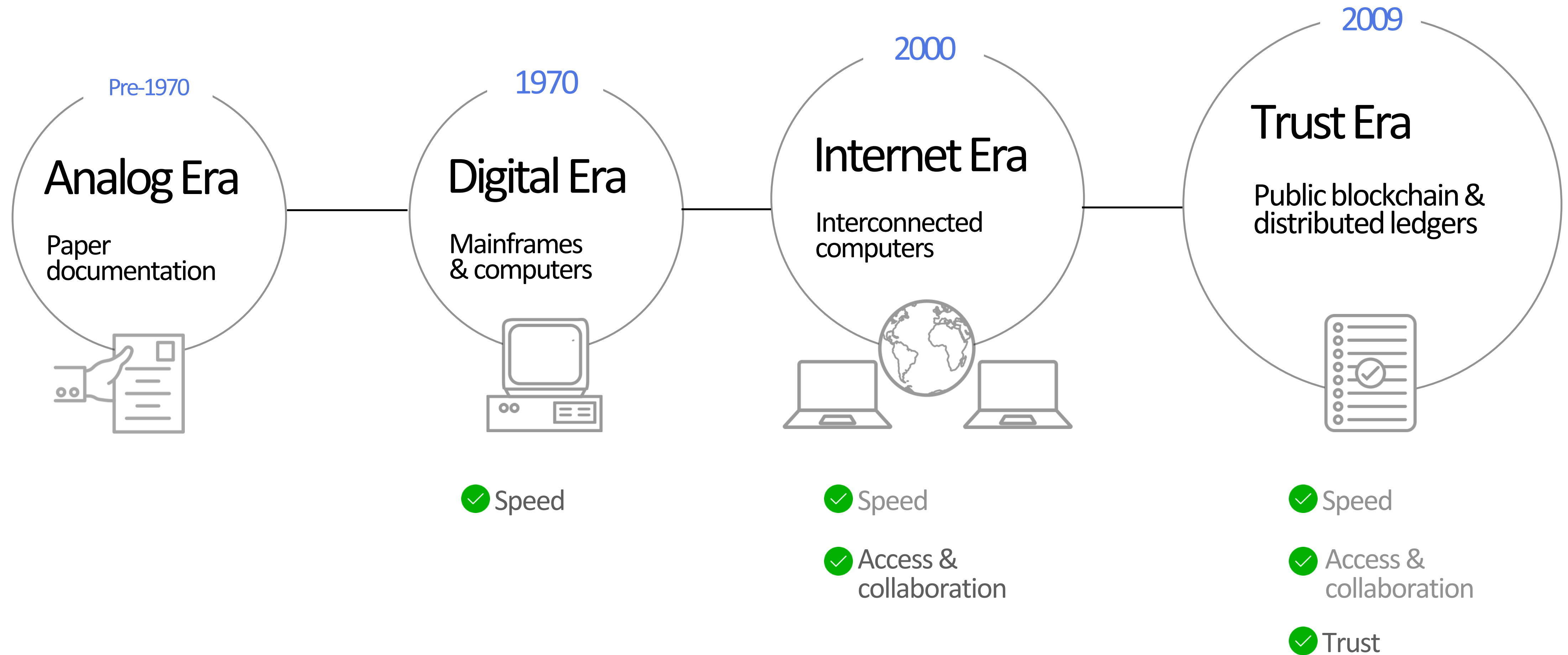
Already have an account? [Log In](#)





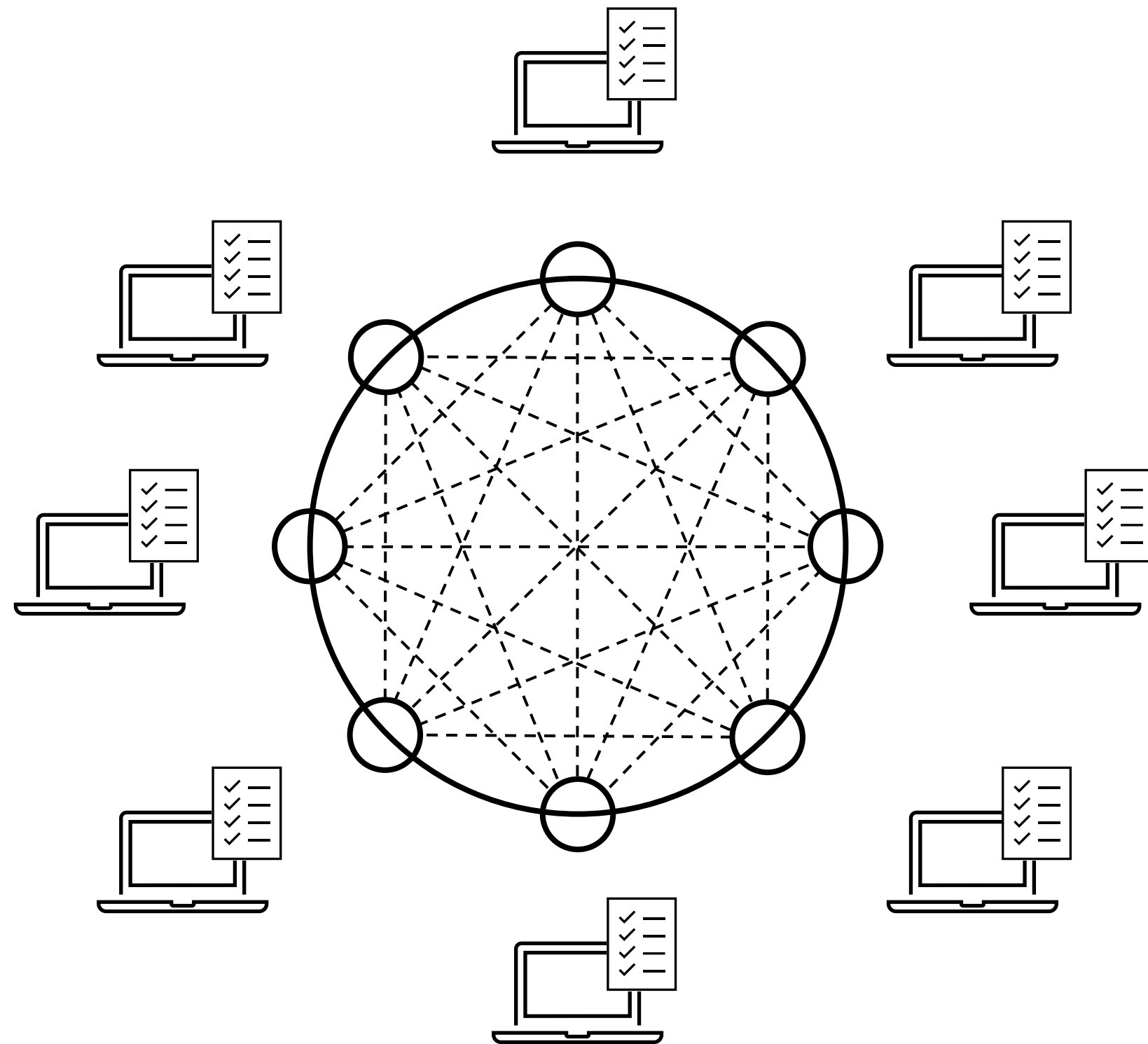
APPLICATION PREVIEW

The web evolves continuously and now it is becoming more decentralized



Distributed ledgers are a key component of Web 3.0 because of their qualities

DISTRIBUTED LEDGER



Entire network records and validates each transaction

CENTRALIZED LEDGER



Single authority verifies, records, and executes transactions

Distributed ledgers are a key component of Web 3.0 because of their qualities

No central point of failure to attack

Reliant on strong cryptography to prove data integrity and tamper resistance

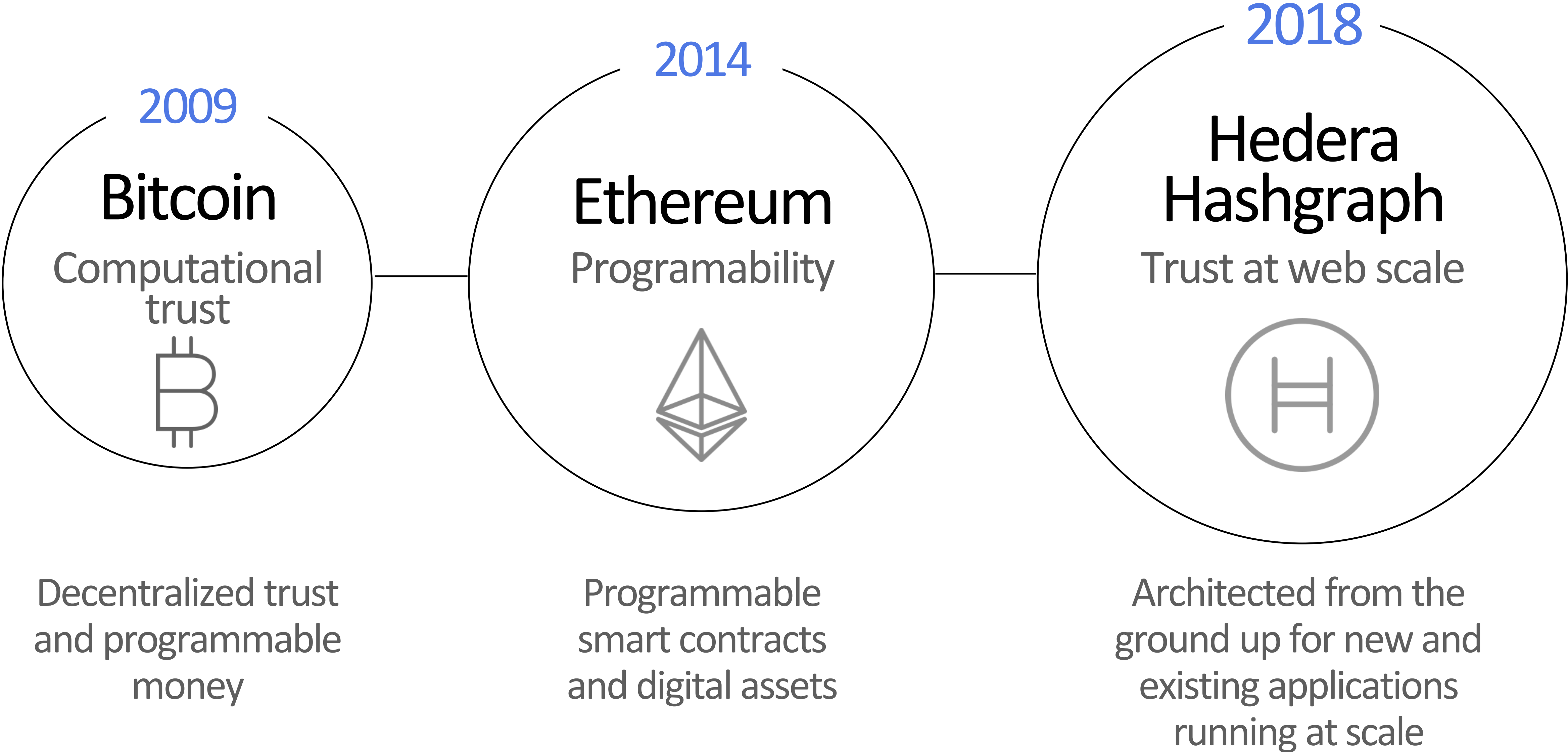


Rules for the ledger are determined by a governing concept of some sort




Require a consensus mechanism to determine the rules for adding new transactions to the state of the ledger



Hedera is a third-generation public distributed ledger



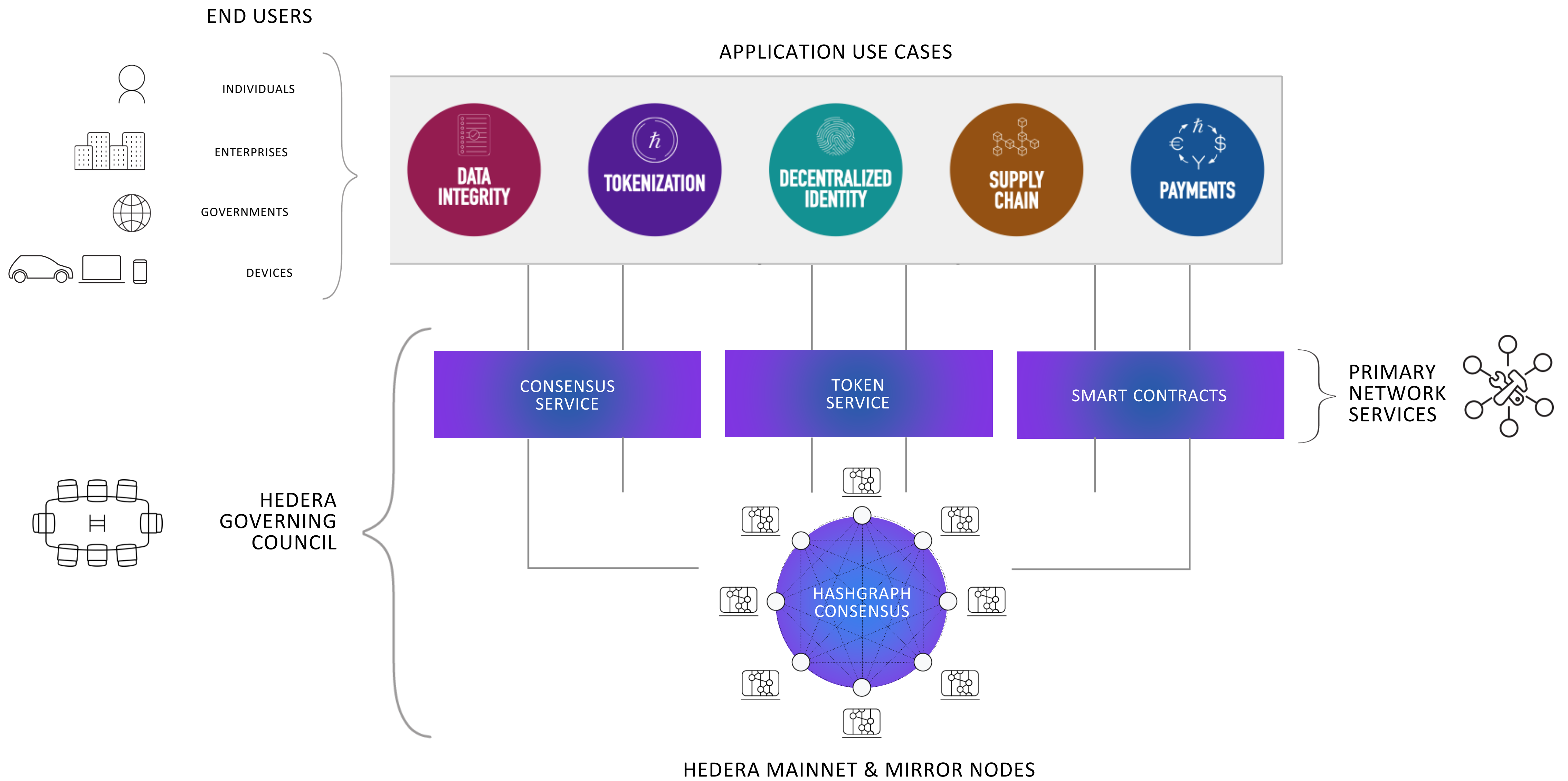
Hedera is a third-generation public distributed ledger

	1ST GENERATION	2ND GENERATION	3RD GENERATION
	 Bitcoin Blockchain	 Ethereum Blockchain	 Hedera™ Hashgraph
TRANSACTIONS PER SECOND	3+ TPS	12+ TPS	10,000+ TPS
AVERAGE TRANSACTION FEE	\$22.57 USD	\$19.55 USD	\$0.0001 USD
AVERAGE TRANSACTION CONFIRMATION	10-60 MINUTES	10-20 SECONDS	3-5 SECONDS (W/ FINALITY)

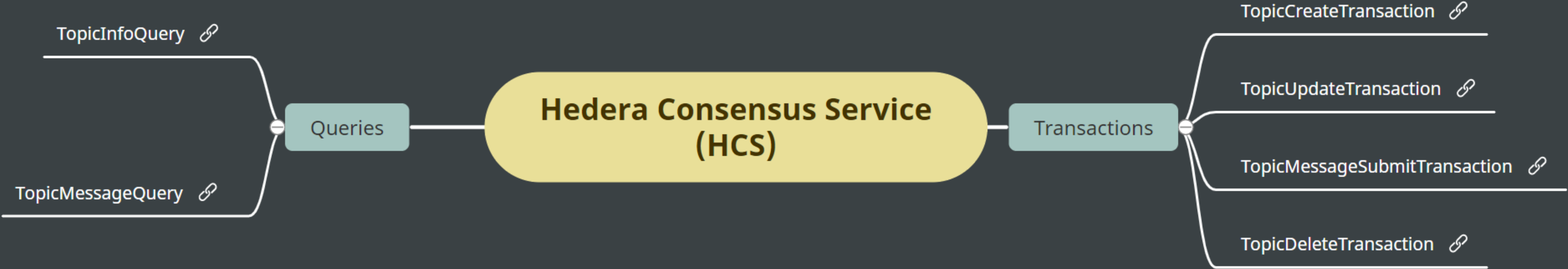
• Cryptocurrency transactions. For Hedera, range shown for transactions not requiring a transaction record, but can receive a transaction receipt.

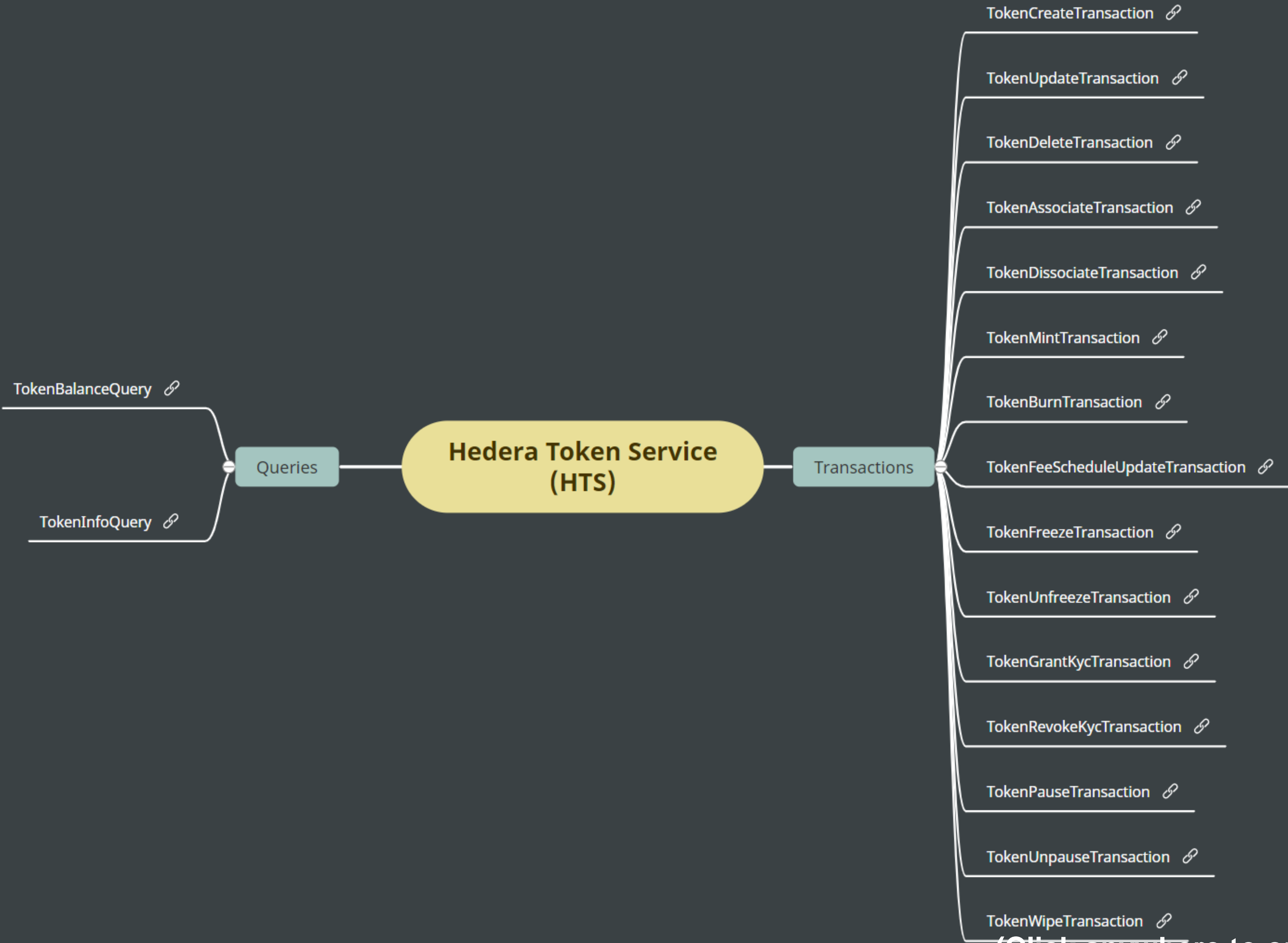
• Avg. Bitcoin tx fee from 6/26/20 - 9/24/20 from <https://blockchair.com/bitcoin/charts/average-transaction-fee-usd?interval=3m>

• Avg. Ethereum tx fee from 6/26/20 - 9/24/20 from <https://blockchair.com/ethereum/charts/average-transaction-fee-usd?interval=3m>

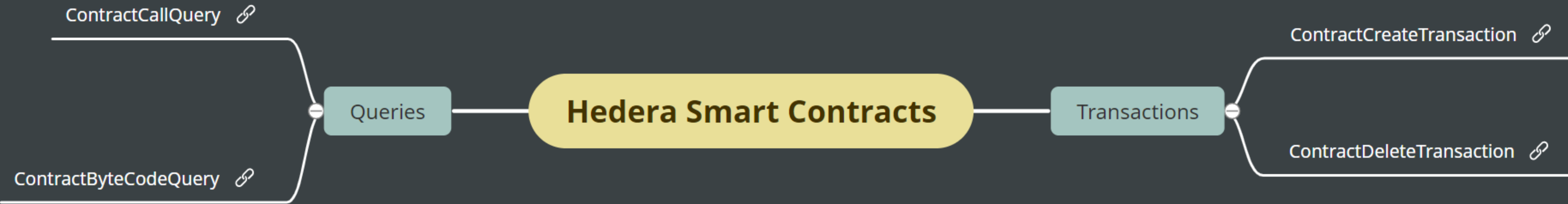








(Click anywhere to open in browser)

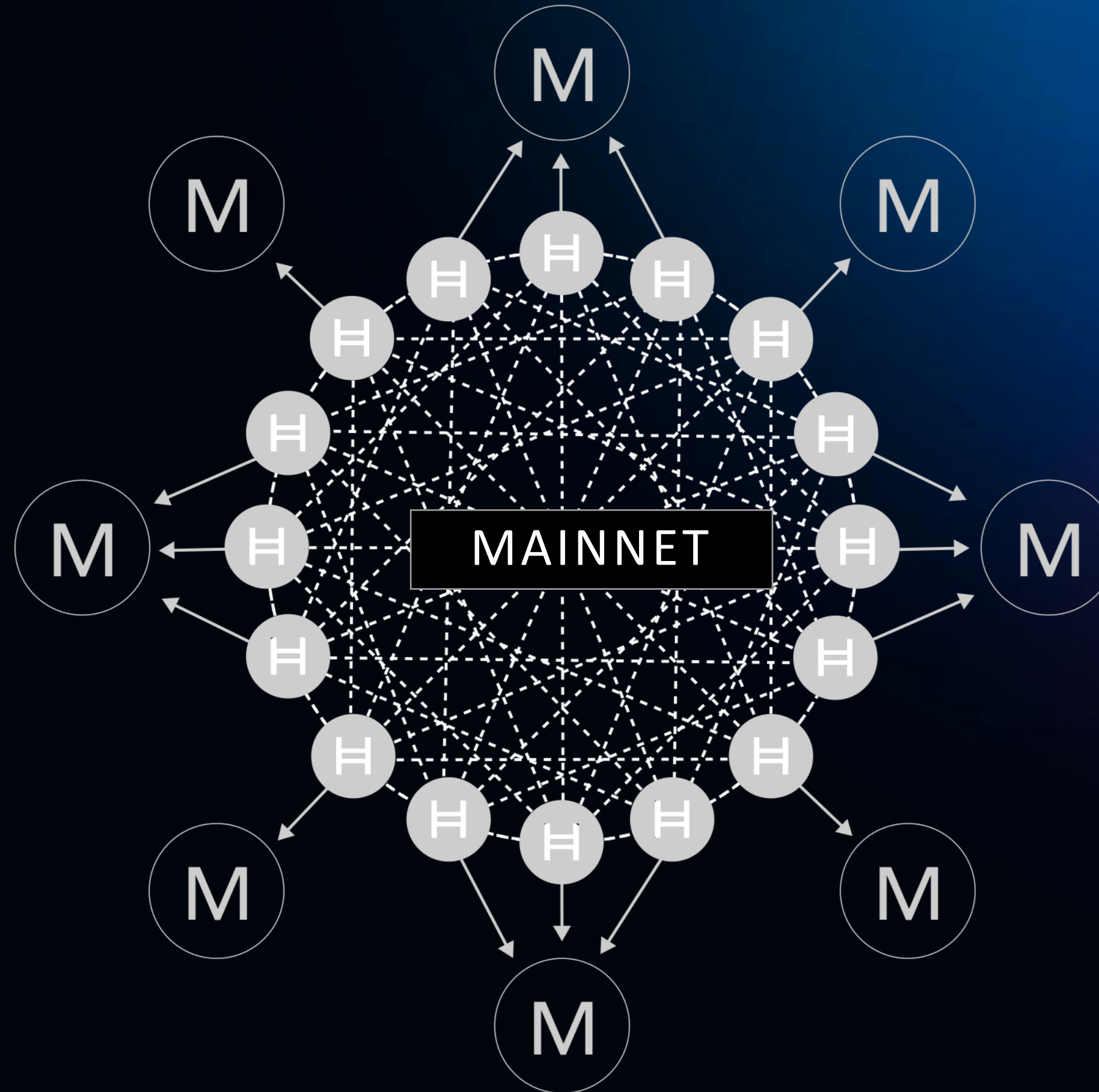


HEDERA MAINNET & MIRRORNET



MAINNET

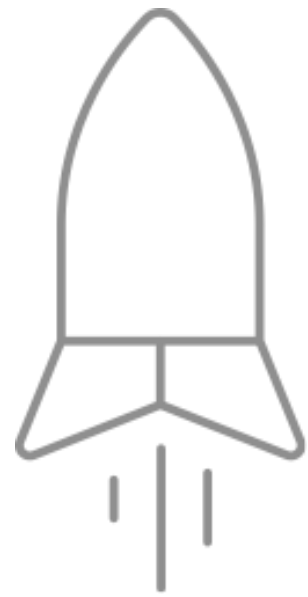
- Can submit HAPI (Hedera API) transactions to the Hedera network
- Contributes to consensus on transactions
- Creates events on the Hedera network
- Requires HBAR cryptocurrency payment for transactions & queries



MIRRORNET

- Maintains a history of some or all the Hedera network state and ledger of transactions
- Value-added services (managed read-only node, etc.)
- Enables analytical insight into an application's state / transactions
- Publish and subscribe capabilities

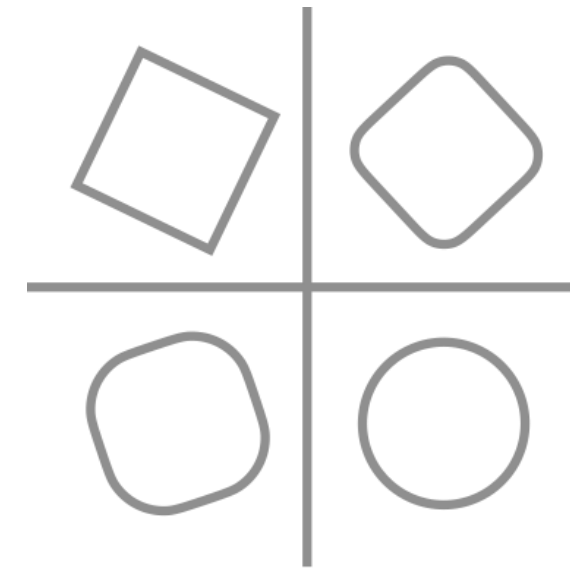
Hedera helps you meet strict requirements in the following areas...



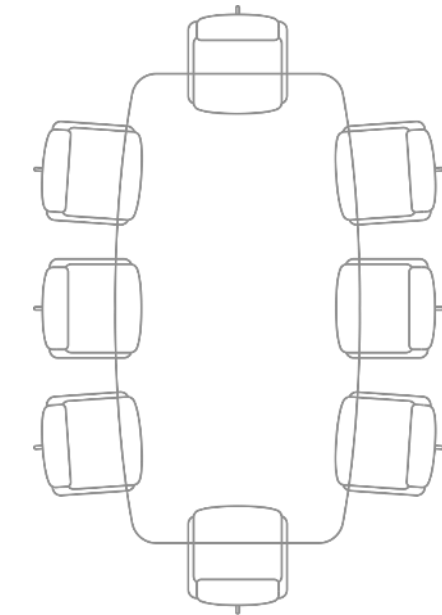
Performance



Security

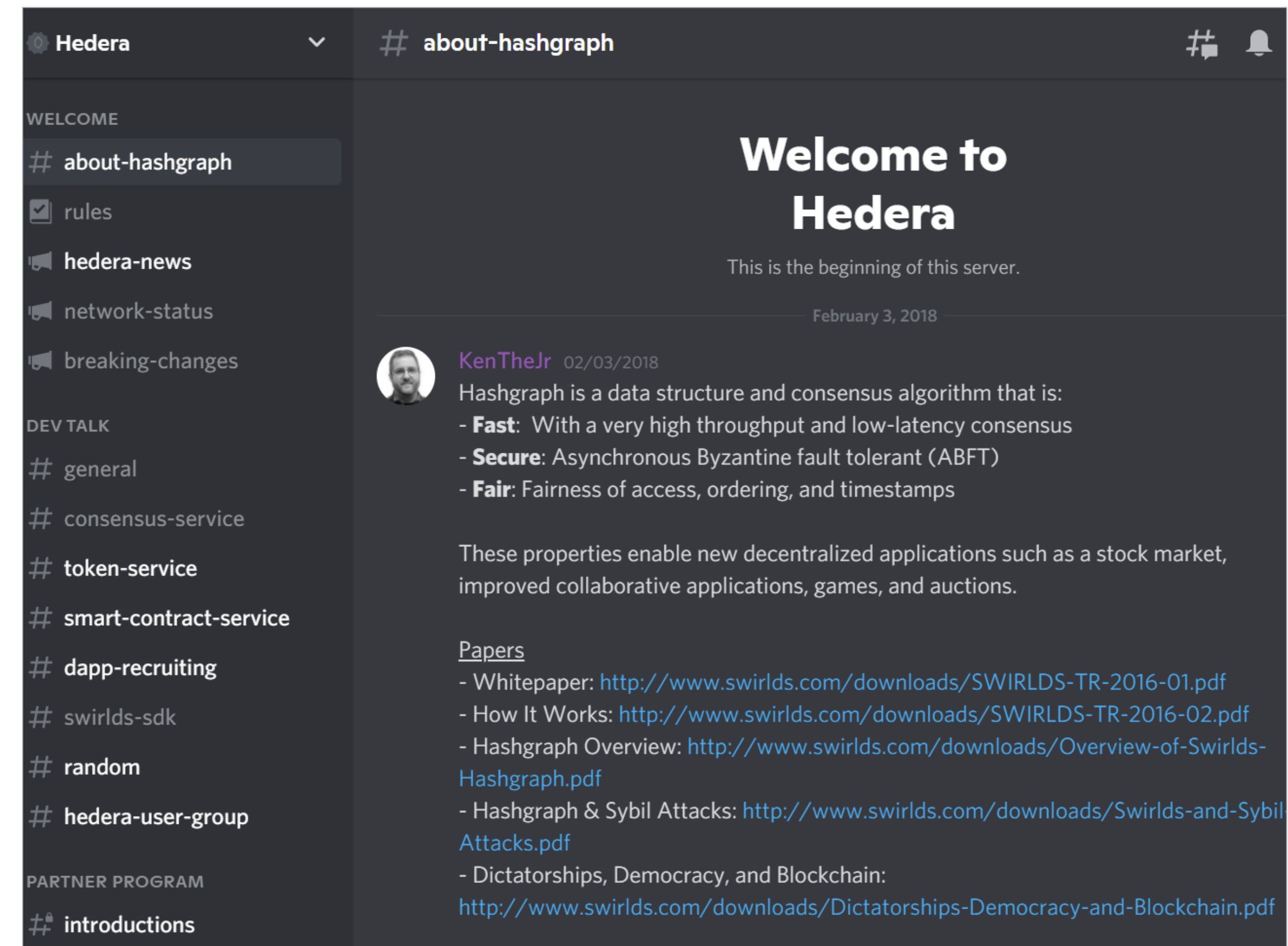
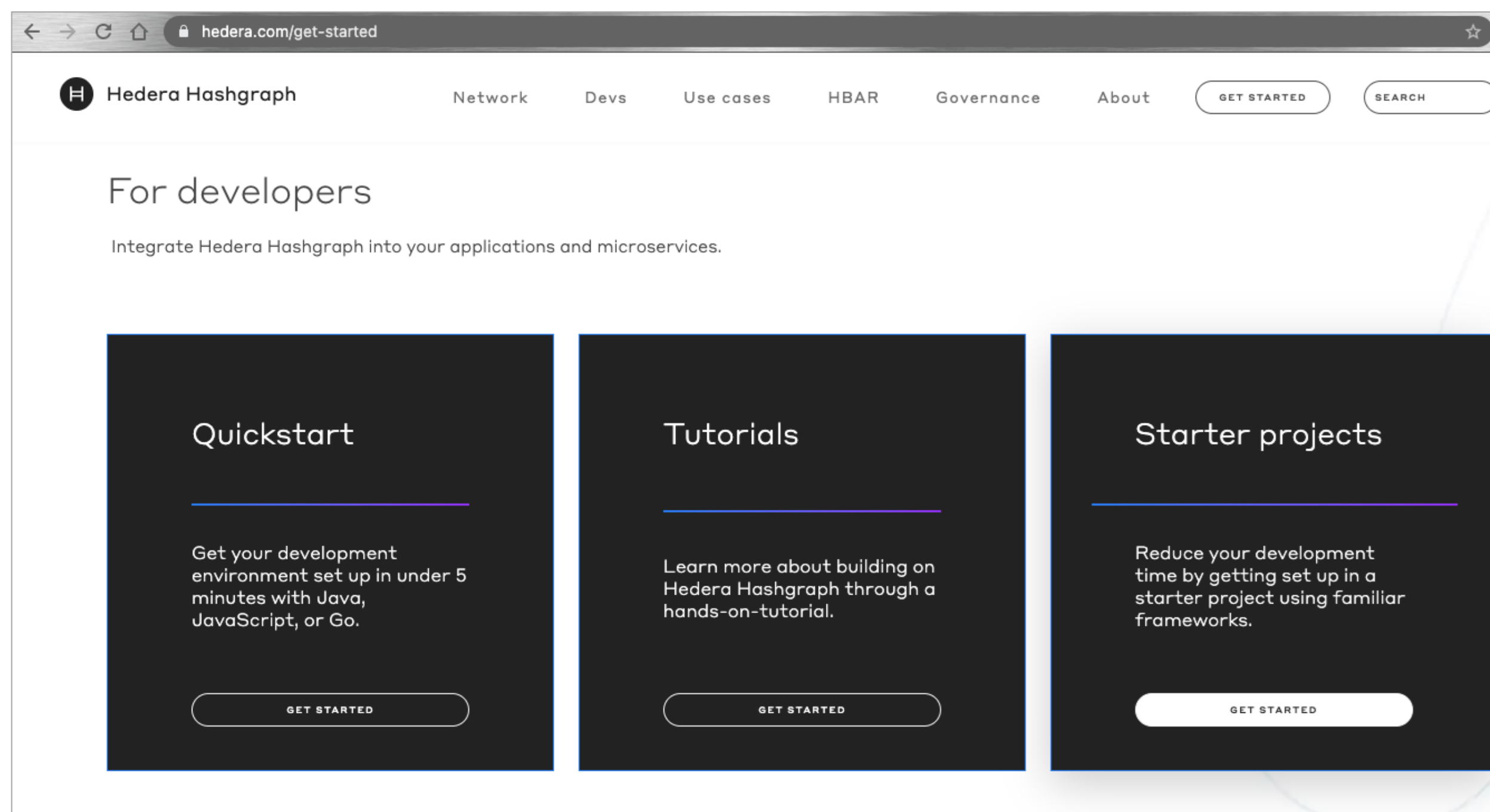


Stability



Governance

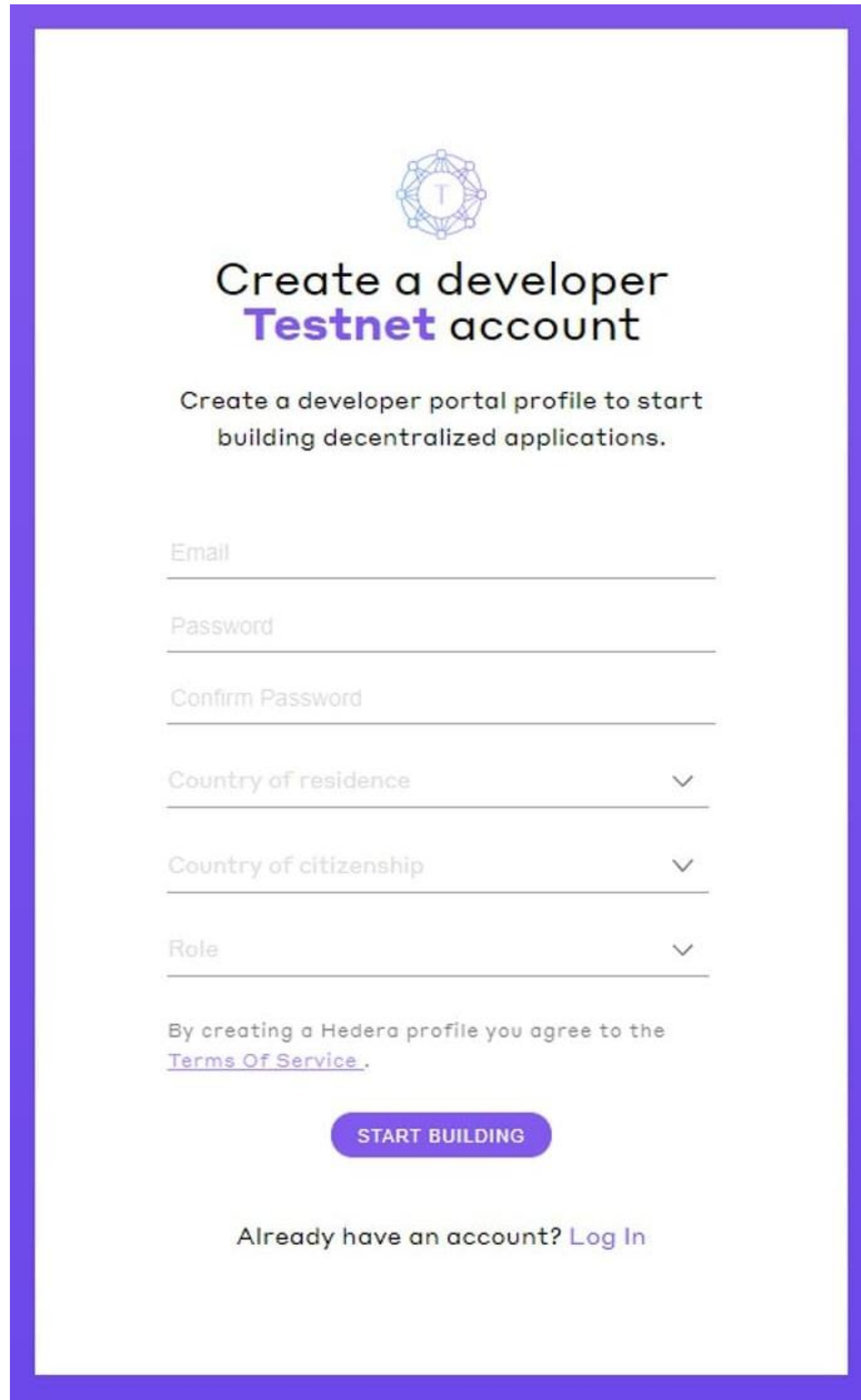
Continue learning with tutorials and with others on Discord



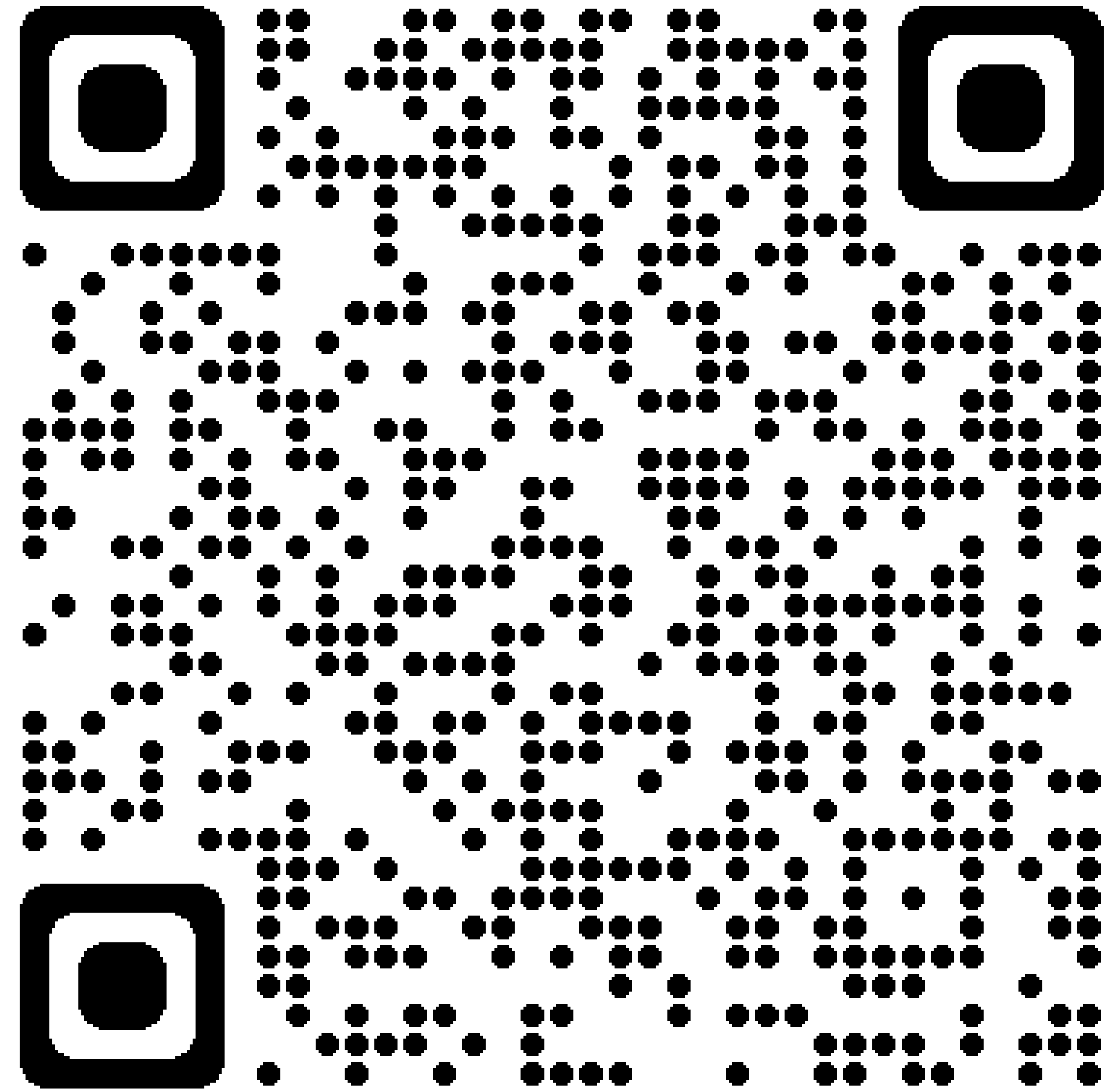
hedera.com/get-started

[Join the Developer Discord](#)

Learn more and start building web 3, but first [get a testnet account!](https://portal.hedera.com/register)



The screenshot shows the 'Create a developer Testnet account' page. At the top is the Hedera logo, a blue geometric shape with a 'T' inside. Below it, the title 'Create a developer Testnet account' is displayed, with 'Testnet' in purple. A subtitle reads: 'Create a developer portal profile to start building decentralized applications.' The form contains several input fields: 'Email', 'Password', 'Confirm Password', 'Country of residence' (with a dropdown arrow), 'Country of citizenship' (with a dropdown arrow), and 'Role' (with a dropdown arrow). Below these fields, a line of text states: 'By creating a Hedera profile you agree to the [Terms Of Service](#).' At the bottom of the form is a purple button labeled 'START BUILDING'. Below the button, there is a link: 'Already have an account? [Log In](#)'.



<https://portal.hedera.com/register>



Hedera™ Hashgraph

THE TRUST LAYER OF THE INTERNET



/ed-marquez



@ed__marquez